

REPTILIA: SQUAMATA: COLUBRIDAE

TANTILLA RUBRA

Catalogue of American Amphibians and Reptiles.

Wilson, L.D., R.K. Vaughan, and J.R. Dixon. 2000. *Tantilla rubra*.

***Tantilla rubra* Cope**
La Rojilla (Red Black-headed Snake)

Tantilla miniator Cope 1863:100. Type locality, "Mirador, Veracruz, Mexico." Holotype, National Museum of Natural History (USNM) 25031, male, Dr. Charles Sartorius collection no. 13, no date of collection, from Cope's estate (examined by authors; see **Remarks**).

Tantilla miniata: Cope 1865:197. First use of combination.

Tantilla rubra Cope 1875 (1876):144. Type locality, "Japana" (= Tapanatepec), Oaxaca, México. Holotype, National Museum of Natural History (USNM) 26500, male, collected by F. Sumichrast, catalogued 9 January 1900 when returned to USNM from Edward Cope's estate, date of collection unknown (examined by authors).

Homalocranium rubrum: Bocourt 1883:590. First use of combination.

Homalocranium rubrum: Boulenger 1883 (1884):14. First use of combination.

Homalocranium miniatum: Günther 1895:146. First use of combination.

Homalocranium boulengeri Günther 1895:148. Type-locality, "Huatzuco, Veracruz, Mexico." Holotype, British Museum (Natural History) (BMNH) 1946.1.8.89, male, collected by F.D. Godman, 1895 (examined by authors).

Tantilla boulengeri: Amaral 1929 (1930):219. First use of combination.

Tantilla deviatix (nec Barbour 1916): Smith 1942:36 (part). Misidentification.

Tantilla morgani Hartweg 1944:5. Type locality, "Necaxa, Puebla, Mexico." Holotype, University of Michigan Museum of Zoology (UMMZ) 85968, male, collected by J.P. Morgan, 18 April 1939 (examined by authors).

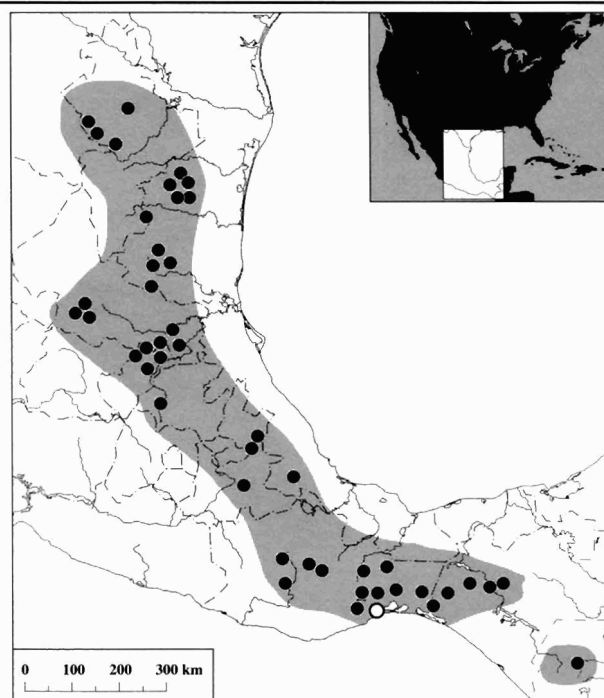
Tantilla bocourti deviatix (nec Barbour 1916): Smith and Lafe 1945:348. Misidentification.

Tantilla rubra rubra: Smith and Werler 1969:173. First use of combination.

Tantilla ruber: Roze 1996:179. *Lapsus*.

• **CONTENT.** No subspecies are currently recognized (Dixon et al. 2000). See **Remarks**.

• **DEFINITION.** *Tantilla rubra* has a uniform reddish tan or brown to bright coral red dorsum. The head pattern consists of a black head cap followed by a white nuchal collar, $\frac{1}{2}$ – $3\frac{1}{2}$ scales in length, that usually crosses the tips of the parietals. The nuchal collar is bounded posteriorly by a black nape band about $\frac{1}{2}$ – $5\frac{1}{2}$ scales long. The venter is immaculate pink to pinkish red. Ventral scales number 144–174 in males, 146–174 in females, and subcaudal scales number 43–81 in males, 48–74 in females. Ventral scales plus subcaudal scales number 194–241 in males and 196–242 in females. Smooth dorsal scales are in 15 rows throughout. The cloacal scute (= anal plate) is divided. Head scales are as follows: no loreal; postnasal and single preocular usually in contact, but may be separated by contact of the prefrontal and the 2nd supralabial on one or both sides; supralabials 7, with 3rd and 4th entering the orbit; infralabials 6, with the first 4 in contact with the anterior chinshields, 4th largest, 1st pair usually not in medial contact, separated by contact of the mental and the anterior chinshields, but sometimes



MAP. Range of *Tantilla rubra*; the circle indicates the type locality; dots mark known records.



FIGURE 1. Adult *Tantilla rubra* from 18 mi N Matias Romero, Oaxaca, México (photograph by Isabelle Hunt Conant).

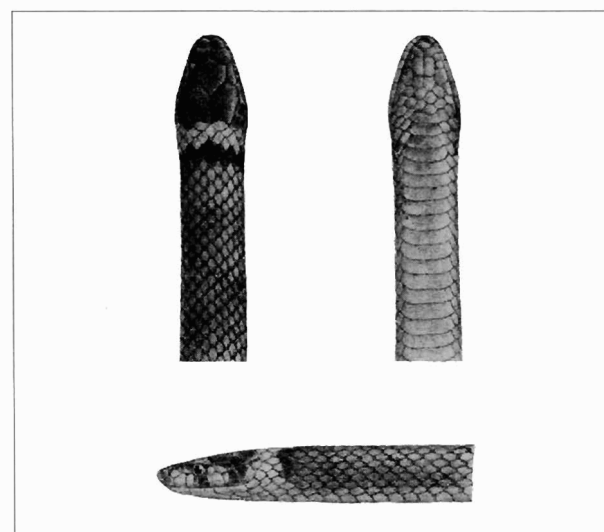


FIGURE 2. Adult *Tantilla rubra* (as *Homalocranium boulengeri*; from Günther 1895).

with the 1st pair in contact, separating mental and anterior chinshields; postoculars 2; and temporals usually 1+1, posterior one elongate. Total length in snakes of all ages ranges from

112–594 mm and tail length from 23–130 mm. Relative tail length is 0.185–0.270.

• **DESCRIPTIONS.** The most complete description is that provided by Dixon et al. (2000). Other descriptions, some very brief, are in Günther (1895, for *Homalocranium boulengeri*), Boulenger (1896, for *H. boulengeri*), Cope (1875 [1876], 1892, 1898 [1900]), and Hartweg (1944, for *Tantilla morgani* and *T. rubra*). Color notes were provided by Taylor (1949) and Hensley and Smith (1962).

• **ILLUSTRATIONS.** Black-and-white illustrations of *Tantilla rubra* are found in Günther (1895, as *Homalocranium boulengeri*) and Taylor (1940). Black and white photographs are in Alvarez del Toro (1960, 1972) and Dixon et al. (2000). A color photograph is in Alvarez del Toro (1982). The hemipenis is illustrated in Cope (1895).

• **DISTRIBUTION.** This species is found at low, moderate, and intermediate elevations (near sea level to 2618 m) of the Atlantic versant from central Nuevo León, México, to western Guatemala, and also at various elevations on the Pacific versant in Oaxaca, México.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Taxonomic and ecological notes are in Smith (1943, 1944) and Alvarez del Toro (1960, 1972, 1982). Habitat descriptions are in Woodbury and Woodbury (1944), Martin (1955, 1958), and Dixon et al. (1972). Arboreality was discussed by Liner and Chaney (1990). Zoogeography of this species was discussed by Morafka (1977) and Johnson (1984, 1989). Comparative histological studies of Duvernoy's gland involving this species were reported in Taub (1963). Food items were described by Woodbury and Woodbury (1944). The most recent review of the systematic status of this species, its synonymy, distribution, and relationship to *T. cucullata* is in Dixon et al. (2000). Additional notes are in Pérez-Higareda and Smith (1991). The species was included in a bibliography to the Middle American region by Villa et al. (1988).

Keys for identification of *Tantilla rubra* (or one of its synonyms) are in Günther (1895), Boulenger (1896, as *Homalocranium boulengeri*), Cope (1863, as *T. miniator*; 1875 [1876], as *T. rubra*; 1887, 1892, as *T. miniata* and *T. rubra*; 1898 [1900], as *T. miniata* and *T. rubra*), Smith (1942), Smith and Taylor (1945), and Wilson (1982, 1995, 1999).

• **REMARKS.** This taxon was recently revised by Dixon et al. (2000). They studied 157 specimens from the entire range and concluded that *Tantilla miniator* Cope 1863 (= *Tantilla miniata auctorum*) and *Tantilla morgani* Hartweg 1944 are synonyms of *Tantilla rubra* Cope 1875 (1876). They further concluded that *Tantilla cucullata* Minton 1956 and *Tantilla diabolus* Fouquette and Potter 1961 are synonymous, and that the taxon thus recognized is specifically distinct from *Tantilla rubra*. Therefore, *Tantilla rubra* is restricted in distribution to México and western Guatemala and *Tantilla cucullata* to the Trans-Pecos portion of Texas in the United States.

Given that the name *Tantilla miniator* Cope 1863 is older than *Tantilla rubra* Cope 1875 (1876) and should have priority, application will be made to the International Commission on Zoological Nomenclature to conserve the latter and much more frequently used name.

• **ETYMOLOGY.** The name *rubra* is derived from the Latin *ruber*, meaning "red," in reference to the dorsal body coloration of this snake in life.

LITERATURE CITED

- Alvarez del Toro, M. 1960. Los Reptiles de Chiapas. Inst. Zool., Tuxtla Gutiérrez, México.
- . 1972. Los Reptiles de Chiapas. Inst. Hist. Nat., Tuxtla Gutiérrez, México.
- . 1982. Los Reptiles de Chiapas. Spec. Ser., Publ. Inst. Hist. Nat., Tuxtla Gutiérrez, México.
- Amaral, A. do. 1929 (1930). Estudos sobre ophídios da região neotropical. XVIII. Lista remissiva dos ophídios da região neotropical. Mem. Inst. Butantan 4:i–viii, 129–271.
- Barbour, T. 1916. A new *Tantilla* from Mexico. Proc. Biol. Soc. Washington 29:93–94.
- Bocourt, M.-F. 1873–1897. Etudes sur les Reptiles. Mission Scientifique au Mexique et dans l'Amérique Centrale – Recherches Zoologiques. Livr. 2–15:33–860.
- Boulenger, G.A. 1883 (1884). Reptilia and Batrachia. Zool. Rec. 20:1–24.
- . 1896. Catalogue of Snakes in the British Museum (Natural History). Vol. 3. Trustees (Brit. Mus.), London.
- Cope, E.D. 1863. Description of new American Squamata in the museum of the Smithsonian Institution, Washington. Proc. Acad. Nat. Sci. Philadelphia 15:100–106.
- . 1865. Third contribution to the herpetology of tropical America. Proc. Acad. Nat. Sci. Philadelphia 17:185–198.
- . 1875 (1876). On the Batrachia and Reptilia of Costa Rica. J. Acad. Nat. Sci. Philadelphia, ser. 2, 8:93–154.
- . 1887. Catalogue of batrachians and reptiles of Central America and Mexico. Bull. U.S. Natl. Mus. 32:1–98.
- . 1892. A critical review of the characters and variations of the snakes of North America. Proc. U.S. Natl. Mus. 14:589–694.
- . 1895. The classification of the Ophidia. Trans. Amer. Philos. Soc. 18:186–219.
- . 1898 (1900). The crocodilians, lizards, and snakes of North America. Rep. U.S. Natl. Mus. 1898:153–1270.
- Dixon, J.R., C.R. Ketchersid, and C.S. Lieb. 1972. The herpetofauna of Queretaro, Mexico, with remarks on taxonomic problems. Southwest. Nat. 16:225–237.
- , R.K. Vaughan, and L.D. Wilson. 2000. The taxonomy of *Tantilla rubra* and allied taxa (Serpentes: Colubridae). Southwest. Nat. 45:141–153.
- Fouquette, M.J., Jr. and F.E. Potter. 1961. A new Black-headed Snake (*Tantilla*) from southwestern Texas. Copeia 1961:144–148.
- Günther, A. 1885–1902. Biologia Centrali-Americana. Reptilia and Batrachia. Porter, London.
- Hartweg, N. 1944. Remarks on some Mexican snakes of the genus *Tantilla*. Occ. Pap. Mus. Zool. Univ. Michigan (486):1–9.
- Hensley, M. M. and P.W. Smith. 1962. Noteworthy herpetological records from the Mexican states of Hidalgo and Tabasco. Herpetologica 18:70–71.
- Johnson, J.D. 1984. A biogeographic analysis of the herpetofauna of northwestern nuclear Central America. Ph.D. diss., Texas A&M Univ., College Station.
- . 1989. A biogeographic analysis of the herpetofauna of northwestern nuclear Central America. Milwaukee Pub. Mus. Contrib. Biol. Geol. (76):1–66.
- Liner, E.A. and A.H. Chaney. 1990. *Tantilla rubra rubra* (Red Black-head Snake). Arborality. Herpetol. Rev. 21:20.
- Martin, P.S. 1955. Zonal distribution of vertebrates in a Mexican cloud forest. Amer. Nat. 89:347–361.
- . 1958. A biogeography of reptiles and amphibians in the Gómez Farías region, Tamaulipas, Mexico. Misc. Publ. Mus. Zool. Univ. Michigan (101):1–102.
- Minton, S.A., Jr. 1956. A new snake of the genus *Tantilla* from west Texas. Fieldiana, Zool. 34:449–452.
- Morafka, D.J. 1977. Biogeographical analysis of the Chihuahuan desert through its herpetofauna. Biogeographica 9:1–313.
- Pérez-Higareda, G. and H.M. Smith. 1991. Ofidiofauna de Veracruz. Análisis Taxonómico y Zoogeográfico. Ophidiofauna of Veracruz. Taxonomical and Zoogeographical Analysis. Inst. Biol. Publ. Espec. (7), UNAM, México, D.F.
- Roze, J.A. 1996. Coral Snakes of the Americas: Biology, Identification, and Venoms. Kreiger Publ., Malabar, Florida.
- Smith, H.M. 1942. A résumé of Mexican snakes of the genus *Tantilla*. Zoologica 27:33–42.

- . 1943. Summary of the collection of snakes and crocodilians made in Mexico under the Walter Rathbone Bacon Traveling Scholarship. *Proc. U.S. Natl. Mus.* 93:393–504.
- . 1944. Snakes of the Hoogstraal Expeditions to northern Mexico. *Field Mus. Nat. Hist., Zool. Ser.* 29:135–152.
- and L.E. Lafe. 1945. Mexican amphibians and reptiles in the Texas Cooperative Wildlife Collections. *Trans. Kansas Acad. Sci.* 48:325–354.
- and E.H. Taylor. 1945. An annotated checklist and key to the snakes of Mexico. *U.S. Natl. Mus. Bull.* 187: iv + 239 p.
- and J.E. Werler. 1969. The status of the Northern Red Black-headed Snake, *Tantilla diabolus* Fouquette and Potter. *J. Herpetol.* 3:172–173.
- Taub, A. 1963. Comparative histological studies of the Duvernoy's gland of colubrid snakes. *Bull. Amer. Mus. Nat. Hist.* 138:1–450.
- Taylor, E.H. 1940. Some Mexican serpents. *Univ. Kansas Sci. Bull.* 26: 445–487.
- . 1949. A preliminary account of the herpetofauna of the state of San Luis Potosi, Mexico. *Univ. Kansas Sci. Bull.* 33:169–215.
- Villa, J., L.D. Wilson, and J.D. Johnson. 1988. Middle American Herpetology. A Bibliographic Checklist. Univ. Missouri Press, Columbia.
- Wilson, L.D. 1982. *Tantilla*. *Cat. Amer. Amphib. Rept.* (307):1–4.
- . 1995. Clave para las especies de *Tantilla*, p. 249–252. In O.A. Flores-V., F.M. Quijano, and G.G. Porter (comp.), *Recopilación de Claves para de Determinación de Anfibios y Reptiles de Mexico*. Spec. Publ. Mus. Zool. UNAM (10):1–285.
- . 1999. Checklist and key to the species of the genus *Tantilla* (Serpentes: Colubridae), with some commentary on distribution. *Smithson. Herpetol. Info. Serv.* (122):1–36.
- Woodbury, A.M. and D.M. Woodbury. 1944. Notes on Mexican snakes from Oaxaca. *J. Washington Acad. Sci.* 34:360–373.

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